

WHAT IS CLAIMED IS:

1. A radiofrequency electrode comprising:
an elongated shaft having an axis, a proximal end
and a distal end;
electrical conducting means for conducting
radiofrequency energy from said proximal end to said distal end;
and
at least one electrode member secured relative to
said distal end of said shaft and to said electrical conducting
means, said at least one electrode curved convexly relative to
said shaft axis.
2. A radiofrequency electrode according to claim 1
wherein said electrode member has an outward surface facing away
from said axis and an inward surface facing toward said axis,
further comprising an insulating member interposed between said
inward surface and said distal end of said shaft.
3. A radiofrequency electrode according to claim 2
wherein said insulating member comprises a channel for
supporting said electrode member.

4. A radiofrequency electrode according to claim 1 wherein said electrode member is elongated and lies in a plane.

5. A radiofrequency electrode according to claim 4 wherein said plane is axial.

6. A radiofrequency electrode according to claim 4 wherein said plane is parallel to said axis.

7. A radiofrequency electrode according to claim 4 wherein said plane is transverse to said axis.

8. A radiofrequency electrode according to claim 1 wherein said electrode member is a wire-like member.

9. A radiofrequency electrode according to claim 1 wherein said electrode member is curved in one dimension only.

10. A radiofrequency electrode according to claim 1 wherein a first portion of said electrode member faces proximally and a second portion of said electrode member faces distally.

11. A radiofrequency electrode according to claim 10 wherein the surface of said distal end of said shaft is spaced a first predetermined distance from said axis and wherein at least a part of said first portion of said electrode member is spaced a second predetermined distance from said axis, said second predetermined distance being greater than said first predetermined distance.

12. A radiofrequency electrode according to claim 1 further comprising:

a longitudinally extending lumen;

an aspiration port situated adjacent said electrode member and in communication with said lumen; and

aspirating means to aspirate ablation by-products through said lumen.

13. A radiofrequency electrode according to claim 12 wherein said lumen is within said shaft.

14. A radiofrequency electrode according to claim 1 further comprising a mechanical resection instrument comprising relatively moving inner and outer cutting windows.

15. An ablation device comprising:

a handle;

an elongated shaft extending from said handle, said shaft having a proximal end attached to said handle and a distal end, said distal end terminating in a generally cylindrical closed end;

an electrode supporting member secured to said distal end, said electrode supporting member having an inner surface for conforming to said distal end and an outer bulbous surface for supporting at least one electrode; and

at least one electrode member secured relative to and conforming to said bulbous electrode supporting surface, said electrode member having a proximal end and a distal end and adapted to receive radiofrequency electromagnetic energy from a source thereof.

16. An ablation device according to claim 15 wherein said electrode member is a wire-like member and further comprising two said wire-like members.

17. An ablation device according to claim 16 wherein said electrode members are parallel.

18. An ablation device according to claim 17 wherein said electrode members are axially aligned.

19. An ablation device according to claim 15 wherein said bulbous electrode supporting surface is electrically non-conductive.

20. An ablation device according to claim 17 wherein said electrode members each have a conducting surface parallel to and spaced a predetermined amount away from said insulating surface.

21. An ablation device according to claim 15 wherein said ablation device operates in a liquid medium and further comprising:

an aspiration means for aspirating ablation by-products from said liquid medium, said aspiration means comprising:

at least one distal port situated at said distal end of said shaft;

a longitudinally extending lumen on said shaft, said lumen operatively connected to said distal port; and

means for aspirating ablation by-products through said distal port and said lumen.

22. An ablation device according to claim 15 wherein said electrode member is a monopolar electrode.

23. An ablation device according to claim 15 further comprising a return electrode adjacent said distal end whereby said ablation device is a bipolar device.

24. An ablation device according to claim 16 wherein the distal-most ends of said electrode members are electrically connected by a transverse conductor.

25. An ablation device according to claim 15 wherein said distal end of said elongated shaft has an outer cylindrical surface spaced a first predetermined radial distance from said axis, and wherein said bulbous electrode supporting surface has a portion thereof at a second predetermined radial distance from said axis, said second predetermined distance being greater than said first predetermined distance.

26. An ablation device according to claim 25 wherein said distal end has a first predetermined width in a first plane and a second predetermined width in a second plane perpendicular to said first plane, said first predetermined width being greater than said second predetermined width.

27. An ablation device according to claim 26 further comprising at least one aspirating port in the portion of said distal end having said first predetermined width.

28. An ablation device according to claim 27 further comprising an aspirating port on opposed sides of said portion of said distal end.

29. A monopolar electrode for use with an electrosurgical pencil connected to an electrosurgical generator comprising:

a shaft having an axis, a distal end and a proximal end, said proximal end adapted to be connected to said electrosurgical pencil, said distal end terminating in a partially bulbous end having a bulbous electrode supporting surface; and

a pair of wire-like electrode members substantially conforming to said bulbous electrode supporting surface, said electrode members adapted to receive radiofrequency electromagnetic energy from a source thereof.

30. A radiofrequency electrode according to claim 1 wherein said electrical conducting means comprises a preformed printed circuit board subassembly.

31. A radiofrequency electrode according to claim 30 further comprising securing means to secure said printed circuit board subassembly to said elongated shaft.

32. A radiofrequency electrode according to claim 30 wherein said printed circuit board subassembly is sufficiently flexible to enable said elongated shaft to be bent without breaking said electrical conducting means.

33. A radiofrequency electrode according to claim 30 further comprising a first junction means to connect said electrical conducting means to a source of radiofrequency energy and a second junction means to connect same to said at least one electrode member.